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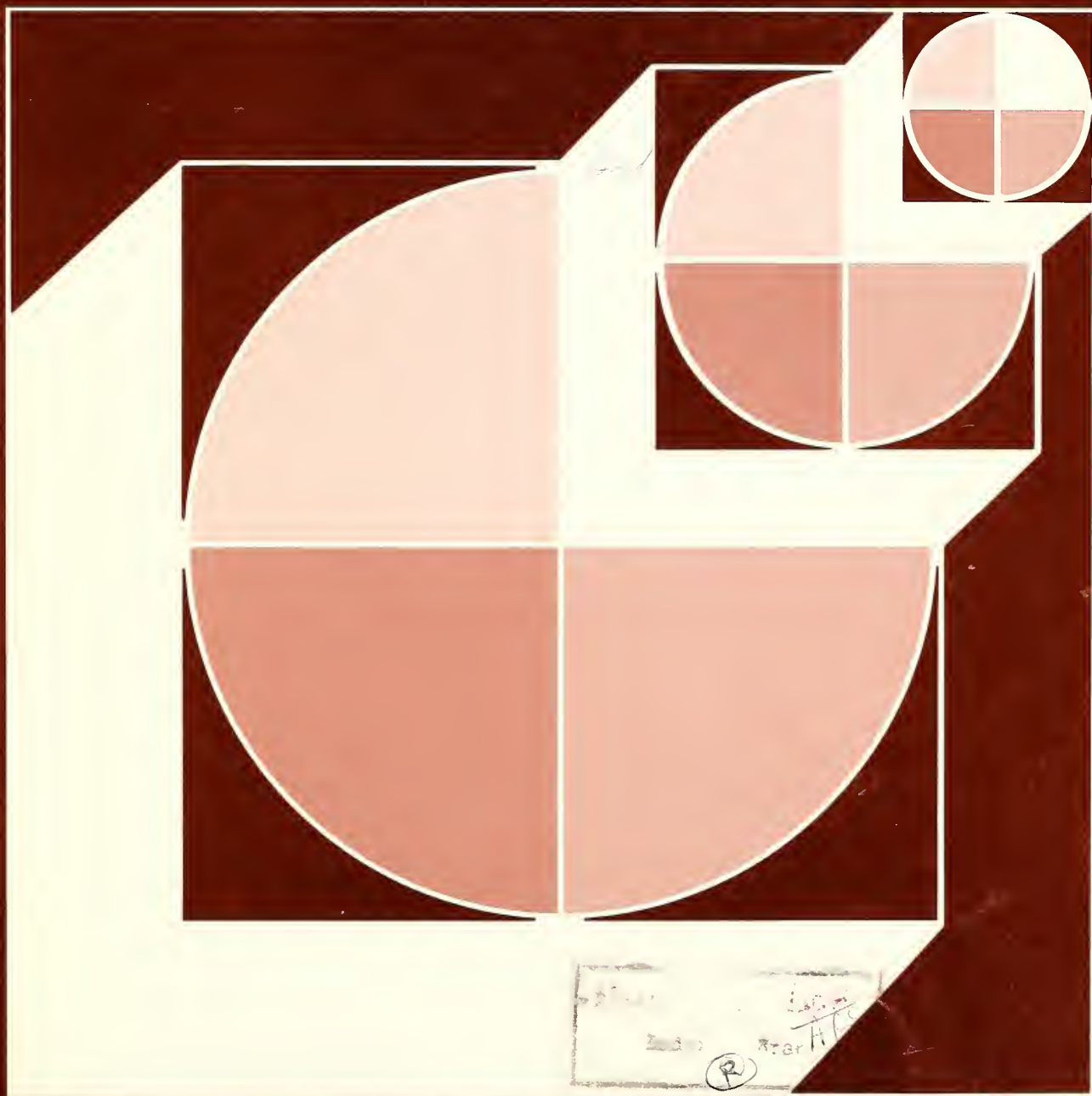
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Family Economics Review

Vol. 1 No. 4

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Suggestions or comments concerning this publication should be addressed to: Joan C. Courtless, Editor, Family Economics Review, Family Economics Research Group, USDA/ARS, Federal Building, Room 439A, Hyattsville, MD 20782.

To Our Readers:

We regret the delay in publishing this issue of **Family Economics Review**. Temporary production problems within the Family Economics Research Group have been resolved, and we expect to resume our regular publication schedule in 1989.

Beginning with this issue, major articles will include a summary. We will continue our goal to enhance the readability and usefulness of **Family Economics Review** by modifying our format, content, and graphic presentations.

The Agricultural Outlook Conference was held on November 29 through December 1, 1988. The Outlook for Families session featured the following speakers:

Gordon Bivens, *Iowa State University*

Jacquelyn McCray, *University of Arkansas-Pine Bluff*

Jeanne Hogarth, *Cornell University*

Jeanette Brandt, *Oregon State University*

For those of you who were unable to attend the Conference, future issues of **Family Economics Review** will include highlights from the program.

Joan C. Courtless
Editor

Sherry Lowe
Managing Editor

December 1988

Contents

Features

- 2 The Employed Woman's Use of Time for Wardrobe Maintenance
Joan C. Courtless
- 8 Supermarket Salad Bars—Cost vs. Convenience
Eileen Patz Newman and Dianne D. Odland
- 11 Dietary Intakes by Employment Status
Katherine S. Tippet and Sharron Cristofar

Research Summaries

- 14 Women and the Labor Market
- 15 Aging in the Eighties, People Living Alone
- 16 Expenditures of Urban and Rural Households
- 17 1990 Census—Proposed Change in Question on Race
- 18 Results of the 1986 Consumer Expenditure Survey
- 19 Computer Use in the United States

Regular Items

- 7 New Publications
- 20 New USDA Charts
- 22 Updated Estimates of the Cost of Raising a Child
- 24 Cost of Food at Home
- 25 Consumer Prices
- 26 Index of Articles in 1988 Issues

The Employed Woman's Use of Time for Wardrobe Maintenance

By Joan C. Courtless
Family Economist
Family Economics Research Group

Because 7 of 10 women age 25 to 54 participate in the labor force, and most women also perform household work activities, time management has become increasingly important. An analysis of time used for clothing care by 365 employed women determined that more women (44%) reported doing this activity on Saturday than any other day, and average daily time spent also was highest on Saturday (44 minutes). For each day, time spent in clothing care was averaged for those women who worked, and a separate mean was calculated for those who were at home. Average times for both sets of women were highest on Monday, 29 and 68 minutes, respectively. Five demographic characteristics were related to time use in clothing care. Increased understanding of how employed women with limited time resources accomplish clothing care tasks can enable teachers and others in family economics-related professions to provide more effective time management advice.

Patterns of time use for wardrobe maintenance have changed greatly over the last five decades with the advent of automatic laundry equipment, easy care fabrics, and the high rate of women's employment outside the home.¹ However, there is little evidence that employed women delegate responsibility for clothing care to others. Time-use research over the years reflects changes and modifications in work habits adopted by women in an effort to simplify their work loads, yet achieve clean, well-maintained wardrobes for themselves and family members. This article reports time spent in the care of clothing and examines

¹ By 1986, 71% of women age 25 to 54 years were in the labor force including 68% of married women, 82% of never married women, and 85% of divorced women (9).

patterns of time use by 365 employed women in maintaining the family wardrobe.

The primary objectives of this study were (1) to determine patterns in time use for wardrobe maintenance² among employed women, and (2) to ascertain any personal and demographic characteristics of employed women affecting time use. Patterns in time use will reflect whether or not:

1. Activities related to wardrobe maintenance are more likely to occur on one day of the week than another,³
 2. Time spent on wardrobe maintenance is greater on one day of the week than another,
 3. Time spent on wardrobe maintenance is greater on days spent at home than on days spent away from home at work.⁴
- Personal and demographic characteristics that might affect time allocated to clothing care were identified, table 1. These variables were chosen to reflect the woman's total work load and her job orientation.

² Wardrobe maintenance included washing, drying, ironing, and mending clothes. Findings from an analysis of time spent in clothing construction were reported separately. See "Time spent in sewing by employed women," by Joan C. Courtless, *Family Economics Review* 85(4):1-3.

³ For the analysis of time spent on wardrobe maintenance by day of the week, 13 diaries were dropped from the original sample because of incomplete or miscoded day identification.

⁴ For the analysis by type of day (working vs. nonworking), an additional 13 diaries were excluded because this variable was incomplete or miscoded.

Source of Data and Methodology

Data are from a 1978 study made by The University of Wisconsin-Extension, Department of Agricultural Journalism, in cooperation with the Extension Service of the U.S. Department of Agriculture (USDA). The Family Economics Research Group of USDA's Agricultural Research Service provided partial financial support for the study. Time diaries and questionnaires covering personal and demographic characteristics were completed during the fall of 1978 by 378 employed women in Wisconsin and Illinois. Women were at least 18 years old and worked for pay or for a family farm or home business. Unmarried as well as married women were included in the sample. The women recorded time use in 30-minute intervals for 7 consecutive days. Respondents were instructed to record their activities in their own words. Two activities were coded for each half hour; if only one activity was mentioned, "no response" was coded for the second activity. Neither activity was given precedence over the other in data analysis. Time use by other household members was not recorded. Sampling and coding procedures were described in detail in *Diary Survey of Wisconsin and Illinois Employed Women* (11).

Statistical tests performed on clothing care time data included the Chi Square and nonparametric correlations to determine whether clothing care activities were more likely to occur on one day of the week than another and whether these activities were more likely to occur on non-working rather than working days. Confidence intervals with a confidence coefficient equal to .95 were constructed for mean time spent on clothing care for each day. Any day with a mean value outside this interval would have significantly different average times from that day with which it was being compared. Finally, analysis of variance was used to determine if times spent on clothing

care on days women were working outside the home and days women were at home were significantly different for each day of the week. Analysis of variance also was used to identify relationships between the independent variables and time spent in clothing care for each day of the week and for the 7-day period. The .05 level of probability was chosen to determine statistical significance.

Results

Nearly all of the respondents (91%) took care of clothes during the week studied. Most of the women performed this activity on 1 to 3 days (62%) or on 4 to 5 days (23%). Average weekly time⁵ spent by 365 women was 3.5 hours.

Clothing care activities occurred most frequently on Saturday (mentioned by 44% of the women), followed closely by Monday and Sunday (42% and 40%) (table 2). The likelihood of clothing care activities occurring on days women were at home was verified for 5 of 7 days ($p < .01$); Tuesday and Wednesday were the exceptions.

Average daily times spent on clothing care varied from 23 to 44 minutes. Time spent on Saturday was highest; Monday and Sunday were next with 34 minutes (table 2). An examination of confidence intervals identified Saturday as a day on which time spent on clothing care was significantly greater than time spent on any other day. Also, time spent on Sunday and Monday was significantly higher than time spent on the four remaining days.

When only women who performed the activity were included, average daily times spent on clothing care exceeded 1 hour on every day. Average time varied from 72 minutes on Thursday to 99 minutes on Saturday (table 2).

Time spent on clothing care was compared for each day of the week by whether or not it was a working

Table 1. Personal and demographic characteristics of 365 employed women, 1978

	Percent		Percent
Age (years):		Hours of employment:	
18-24	15	Under 40 per week	43
25-34	33	40	33
35-44	19	Over 40	24
45-54	18	Work shift:	
55 and over	15	Regular day	75
Marital status:		Morning, afternoon, evening or night (including part time) ..	14
Married	71	Irregular hours, split shifts ..	11
Single	16	Future work plans:	
Divorced or widowed	13	Remain at present job	33
Total children (number):		Advance to more professional job	28
0	23	Full-time homemaker, retire ..	28
1	15	Switch jobs, same skill level ..	11
2	27	Reason for working:	
3 or more	35	Financial	64
Children at home:		Pursue profession	6
0	34	Occupy time	6
1	26	Personal satisfaction	21
2	26	Preference for not working: ¹	
3 or more	14	Yes	31
Teenagers:		No	69
0	77	Feel rushed:	
1	15	Always	33
2 or more	8	Sometimes	57
Age of youngest child (years):		Never	10
6 and younger	24	Receive help from —	
7-18	38	Husband	46
19 and older	38	Children	47
College education:		Own income:	
Attended	45	Under \$8,000	45
Did not attend	55	\$8,000 to \$12,000	33
Occupation:		\$12,000 to \$15,000	12
Clerical	27	Over \$15,000	10
Other white collar	37		
Blue collar	36		

¹ Asked of those who specified financial reasons.

Table 2. Time spent on clothing care by 365 employed women, 1978

Day	Percent of women spending time	Average number of minutes	
		All women	Those doing activity
Sunday	40	34	85
Monday	42	34	83
Tuesday	32	23	73
Wednesday	34	25	75
Thursday	36	26	72
Friday	32	26	82
Saturday	44	44	99

⁵ Average time refers to average for the entire sample unless otherwise specified.

day for the women in the survey. Average times were consistently higher for nonworking days than for working days (table 3). For 6 of 7 days the difference was significant ($p < .05$).

Independent variables found to significantly affect time used for clothing care over the 7-day period were age, marital status, children (total number, number at home, and number of teenagers), workshift, and perception of being rushed in performing tasks. In addition, these variables related significantly to time spent for clothing care on one or more individual days of the week. Other independent variables found to affect time spent on one or more individual days of the week, but not over the 7-day period, were age of youngest child, education, occupation, future work plans, a preference for not working, help from husband, and help from children. Variables having no significant relationship to time spent on clothing care activities were own income, hours on the job, and reason for working. Certain attributes of the husband, including income, hours on the job, workshift, and occupation, were tested and found to be insignificant factors, also.

Age

Greatest time for clothing care was recorded by women age 35 to 44 years. Over the 7-day period these women spent at least 1 hour more than any other age group on clothing care (table 4).

Table 4. Time spent on clothing care, 7-day period, by woman's age, 1978

Age (years)	Hours	Minutes
18 - 24	2	10
25 - 34	3	36
35 - 44	4	40
45 - 54	3	37
55 and over	3	10

Table 3. Time spent on clothing care reported by 352 employed women, by working or nonworking day, 1978

Day	Number reporting		Minutes spent	
	Working day	Nonworking day	Working day	Nonworking day
Sunday	48	304	15	36
Monday	299	53	29	68
Tuesday	311	41	21	37
Wednesday	303	49	24	36
Thursday	317	35	22	52
Friday	312	40	24	45
Saturday	92	260	16	54

Marital status

Married women spent the most time during the week, slightly over 4 hours. Formerly married (divorced or widowed) women averaged 2 hours and 48 minutes; and single women, 1 hour and 43 minutes. Differences between marital status groups were not significant for Saturday or Sunday.

Children

Number of children, number of children at home, and number of teenagers affected time spent over the 7-day period. Women with more children in the family spent significantly more time in taking care of the family's clothing (table 5).

Table 5. Time spent on clothing care, 7-day period, by number of children, 1978

Number of children	Hours	Minutes
Total		
0	2	9
1	3	54
2	3	55
3 or more	4	17
At Home		
0	2	42
1	3	54
2	4	2
3	5	37
At home, 13-18 years old only		
0	3	13
1	4	12
2 or more	5	15

Women's age was related to number of children ($p < .001$) and number of children at home ($p < .001$). Women between the ages of 35 and 44 years spent the greatest time on clothing care and had the highest number of children at home.

Workshift

Women who worked an odd shift (for example, 5 a.m. to 1 p.m. or 3 p.m. to 11 p.m.) or part time spent more time (4 hours, 45 minutes) on clothing care over the 7-day period than other working women. Almost two-thirds of those women working shifts in the morning, afternoon, evening, or night worked less than 40 hours per week.

Feel rushed

Women who always felt rushed were allocating more time to clothing care during the week than other women. Women who reported they never felt rushed spent the least time (table 6).

Table 6. Time spent on clothing care, 7-day period, by feeling rushed, 1978

Feel rushed	Hours	Minutes
Always	3	55
Sometimes	3	27
Never	2	43

Literature Review

Research in time use reflects changing patterns over the years. Warren's study of 500 New York farm women (17) in 1936 found they were most likely to wash on Monday and iron on Tuesday, and only 2% of the women spent any time on Sunday for clothing care. During the early fifties "wash and wear" fabrics that reduced the need for ironing were introduced. Wives in almost 1,300 households studied by Walker and Woods (16) in 1967-1968 used an automatic washer an average 3 or 4 days out of 7, but ironed infrequently. A regional study of 2,100 families in 1977-78 by Johnson, Ater, and Khan (2) determined that 20% of the homemakers used an automatic washer every day and an additional 50% used it 3 to 5 days during the week. The same study, however, found that the amount of time spent in care of clothing and/or household linens was significantly greater on Mondays, supporting "the traditional Monday washday pattern."

Focusing on the employed woman. When women enter the labor force, increased demands are placed on their nonlabor market time. For any specific activity, time becomes an increasingly scarce resource--and so, more valuable (5). Time spent by women on housework is curtailed by time spent outside the home. Studies of time use have concluded that women's employment has the greatest effect on the amount of time used for household work (data show no commensurate increase in time spent by other family members) and is the most important factor in predicting the wife's time allocation to housework (1, 6, 7). Using data collected by Robinson and Converse in the midsixties, Vanek (12) reported employed married women spent about one-half the time spent by unemployed married women in housework. Although being employed decreases wives' time in every area of household work (16, 19), other studies (8, 10) made in the sixties and seventies showed time spent on housecare and clothing is reduced more than time for other

activities. Because a woman's employment is so closely related to time used to produce goods and services in the home, researchers such as Sanik (7) and Walker and Woods (16) have recommended its use as a control variable in future research. An alternative approach, used by Steeves (11), is to limit a study sample to employed women.

Time management techniques of employed women. Work connected with clothing upkeep is sufficiently diverse that employed homemakers can vary the way they adapt to time pressures in order to carry out tasks related to wardrobe maintenance. A task may be done more efficiently, less thoroughly, less frequently, or by others. A theory published by Vanek (12) in 1974 suggests that employed homemakers may appear to be more efficient than nonemployed homemakers when they are obliged to "cut corners" and simplify their housekeeping standards. Vanek also suggests that the full-time homemaker, in contrast, may equate time spent on homemaking tasks with the value of those tasks; she may believe that if her standards are high enough to necessitate the expenditure of a large proportion of her time, her contribution to the economic well-being of her family is as important as that of the homemaker with paid employment.

Homemakers may obtain equipment they believe will save them time. Lovingood and McCullough (4) examined data collected in 1977-78 from 2,100 households and concluded that ownership of a clothes dryer was positively related to the homemaker's hours of employment. Although some activities are easier to do and physical demands have been reduced, average time spent in clothing care has not declined with the advent of automatic equipment (8, 16). There is also some evidence that the relative ease of washing clothes in an automatic washer is conducive to more frequent laundering (15). Clothes may be sorted into small loads having similar cleaning requirements; this could increase the number of loads done in the machine. Although total work time is not diminished, cleaner

clothes indicate a rise in the family's standard of living (8, 12, 13).

Time-use data can be analyzed to determine how frequently an activity is performed. Walker and Woods (16) compared employed and unemployed wives with regard to the frequency with which various household tasks were carried out. Laundry activities were done on more days by unemployed wives than by employed wives except for handwashing of clothes. Over a period of 7 days, employed women washed clothing by hand on an average of 2.6 days compared with 1.9 days for unemployed women. Both groups of women washed similar numbers of items—an average of 1.2 per day.

Women may receive help from family members or paid help may be hired. In the care of clothing, however, homemakers receive little help, whether or not they are employed; Walker and Woods (16) found that other family members contributed an average 14% of total time required for clothing care in households with an employed homemaker, compared with 6% of total time when the homemaker was not employed. A 1977-78 study of over 500 adolescents ages 12 through 17 years by Lawrence, Tasker and Babcock (3) found average time spent in clothing care was 2 minutes per day; mother's employment did not affect this time. Because the time spent on household work by paid help, husbands, and other family members does not increase when the wife is employed (13, 14, 18), her work load at home remains the same as if she were not employed. Therefore, differences in time spent in housework by employed and nonemployed homemakers are not caused by differences in work loads (13). This premise is supported by Johnson, Ater, and Khan (2) who found that even though time spent on clothing care was less among employed women, no differences in number of washer loads were reported by employed and nonemployed women. They suggest other clothing care practices are eliminated when the wife is employed.

Discussion and Implications

Employed women use substantial amounts of time for clothing care activities on days they are not working away from home, independent of which days these are. Because the women in the Wisconsin/Illinois sample generally worked Monday through Friday, average times recorded on Saturday and Sunday were expected to exceed those recorded on other days. Although average time spent on clothing care activities was highest on Saturday, Sunday's average time was not significantly different from Monday's—a day when 85% of the women worked away from home. Monday is the traditional day for doing laundry, and working women may continue to wash and dry clothes on this day because it is customary. Also, Monday is the logical day for cleaning up after weekend guests, catching up on accumulated laundry after a weekend away from home, or taking care of clothes worn for special activities on Saturday and Sunday. Some women may plan to do laundry or mending on Saturday and Monday to avoid doing it on Sunday; in many households, Sunday is reserved for recreation, activities with the family, and as a rest day. Many of the reasons that can be cited for doing clothing care activities on Monday could have applied to past generations of women, employed and non-employed, thereby contributing to the evolution of the Monday wash-day custom.

For each day, time spent in clothing care was averaged for those women who worked, and a separate mean was calculated for those who were at home. Average times for both groups were highest on Mondays and lowest on Sundays (table 3), confirming the effect of tradition.

Help received from husband and children did not significantly affect time spent on clothing care by employed women. Therefore, employed women with larger families have greater workloads and spend more time taking care of cloth-

ing than employed women with smaller families (table 5). Variables supporting this conclusion were marital status, number of children, number of children at home, and number of teenagers.

An indication of workload stress may be inferred from employed women's perceptions as to whether they feel rushed to complete their daily activities. Are the women who never feel rushed more efficient homemakers? Or do they have less to do? The employed women who always felt rushed spent over an hour more on clothing care over the 7-day period than those who never felt rushed. Number of children in homes of women who always felt rushed was not significantly greater than that in homes of women who never felt rushed. Therefore, factors other than workload may contribute to an employed woman's feeling rushed.

Since data for this study were collected only during the late fall season, findings related to time use for clothing care in other seasons may differ. Types of clothing typically worn during the summer months may require additional time for laundering and ironing. Also, there is a tendency to change clothes more frequently during the hot weather.

Because workshift was a significant variable (and hours of employment was not), future time allocation studies could focus on the time of day when specific tasks are done. Patterns of activities occurring in the morning before leaving for work, in the evening after dinner, and any other kinds of activities often performed simultaneously with various clothing care tasks could be identified.

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New Publications

The following publications are for sale from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402. (202) 783-3238:

- **The Agricultural Work Force of 1985: A Statistical Profile.** SN001-019-00568-8. March 1988. \$1.75. (32 pp.)

Findings from the 1985 Agricultural Work Force Survey are presented in this report. Included is information on hired farmworkers, farm operators, unpaid farm workers, and characteristics of the Agricultural work force.

- **Local Farm Structure and Community Ties.** SN001-019-00555-6. March 1988. \$1.50. (22 pp.)

Changes within farming influence a county's farm structure. This report identifies which counties are dominated by small- or large-scale farms, and gives information on other key factors such as nonfarm economic activity, geography, and population growth.

A single copy of the following is available free from the National Technical Information Service. Write to NTIS, 5285 Port Royal Road, Springfield, VA 22161, or call (703) 487-4650.

- **NTIS Products and Services Catalog.** PR-827/KIZ. March 1988. (32 pp.)

This catalog describes products and services (resulting from U.S. Government sponsored research and development activities) that are available from NTIS. The new 1988 catalog describes bulletins, journals, and directories collected by NTIS on scientific, technical, and engineering results; computer software; datafiles and databases; and selected Federal technologies and laboratory resources.

A single copy of the following is available from the Consumer Information Center. Write to R. Woods, Consumer Information Center-F, P.O. Box 100, Pueblo, CO 81002.

- **Building A Better Credit Record.** 470T. 1988. \$0.50. (14 pp.)

Covered in this publication from the Federal Trade Commission are explanations of how credit bureaus work, how to understand and improve your credit report, how to deal with credit problems, and where to go for more information.

Single copies of the following are available free from the Consumer Information Center. Write to S. James, Consumer Information Center-F, P.O. Box 100, Pueblo, CO 81002.

- **Social Security....How It Works For You.** 590T. January 1988. (20 pp.)

This pamphlet answers some of the questions and clears up some misconceptions about Social Security. The booklet describes exactly how the program's benefits and services work, and how the system pays retirement, disability, and survivor's benefits.

- **The Student Guide—Five Federal Financial Aid Programs.** 511T. 1988. (69 pp.)

This guide gives information on five grant and loan programs offered by the U.S. Department of Education for college, vocational, and technical school students. Details are included on how to apply for Federal student aid, what to be aware of before borrowing, and debt management.

Supermarket Salad Bars — Cost vs. Convenience //

By Eileen Patz Newman and Dianne D. Odland
Nutritionists
Nutrition Education Division
Human Nutrition Information Service

Demand for and use of takeout foods has resulted in increased popularity of supermarket salad bars. Ingredients purchased from salad bars can reduce home preparation time and are convenient to use. The cost of this convenience is assessed by comparing the cost of ingredients purchased at the salad bar with costs of similar ingredients purchased elsewhere in the store. Most costly items at the salad bar include basic salad ingredients and mixtures made with them; best buys include salad toppings, ingredients of animal origin, and mixtures made with them. Consumers should consider both cost and nutritional factors in making salad bar selections.

Salad bars are a relatively new but popular addition to the supermarket. They are part of a trend toward increased demand for and use of takeout foods from the supermarket by time-pressed and health-conscious consumers (2, 4). Introduced in 1981 (13), salad bars are now available in 45% of the supermarkets in this country, a 10% increase since 1987 (14). In a 1988 nationwide survey of fresh produce consumers (14), 51% of respondents reported using the salad bar at least once a month. Of the general public who say the supermarket in which they do most of their shopping does not have a salad bar, 65% state that they would use a salad bar if it were available (3).

To reduce home preparation time, ingredients purchased from supermarket salad bars are convenient to use as side- or full-meal salads; as portions of stir-fry dishes, sandwich fillings, or soups; or even as desserts. The cost of this convenience depends upon which items are

selected (5). The objectives of this study are:

1. To determine the costs of ingredients purchased at the salad bar compared with costs of similar ingredients purchased elsewhere in the supermarket.
2. To provide guidelines in making cost-wise selections at the salad bar.

Nutritional implications of salad bar selections also are addressed.

Procedures

Price per pound of items at supermarket salad bars and for 55 salad bar items available elsewhere in the store were obtained once during each of 3 weeks in July 1988 in three Washington, DC, area supermarkets—one national and two local chains. Based on sales volume data for 1988, these chain supermarkets represent nearly 86% of sales in the Washington, DC, metropolitan area (1). The following guidelines were used to price similar items elsewhere in the store:

- Items available only at "sale" prices were excluded.
- Medium-size containers for packaged items were selected.
- The lowest unit price was recorded when more than one brand of a product was available.
- Service delicatessen prices were used for ham, ready-prepared salad mixtures, and puddings.

Mean costs for the 3 weeks from the three supermarkets were calculated. Costs for similar items purchased elsewhere in the store were adjusted to account for nonedible portions

and losses due to trimming of fresh foods, and drained liquids from canned foods. For each of 55 items, average cost per pound at the salad bar was then compared with average cost of each food prepared from ingredients purchased elsewhere in the store. The cost of dishes prepared from salad bar ingredients (a stir-fry main dish, a side salad, and a chef's salad) also were determined. Because salad bar items were on sale at half price throughout the study, costs of items purchased elsewhere in the store were compared with both the regular and the sale price per pound at the salad bar.

Results

The average cost per pound of items from the salad bar was \$1.95. Salad bar items on sale averaged \$0.96 per pound. The table on p. 9 summarizes cost comparisons between the average nonsale salad bar items and the average cost of items purchased elsewhere in the store. All produce items in the table are fresh unless otherwise noted.

At the nonsale salad bar price, 29 of the 55 items studied (53%) cost two to four times as much at the salad bar than if purchased elsewhere in the store and prepared at home. Included in this category are some of the most popular salad bar items, such as cucumbers, iceberg lettuce, tomatoes, spinach, and green peppers (6), which are basic salad ingredients. Of the items studied, 26 (47%) cost either less, about the same, or just slightly more at the salad bar. These items included favorites such as mushrooms, cauliflower, broccoli, and strawberries (6).

When on sale at half price, only 7 of the 55 items (bean sprouts, iceberg lettuce, cucumbers, carrots, green cabbage, yellow onions, and watermelon) cost twice as much when purchased at the salad bar at \$0.96 per pound than when purchased elsewhere in the store. The remaining 48 items (87%) cost less, about the same, or just slightly more than when purchased elsewhere.

Cost comparisons of salad bar and similar items purchased elsewhere in the store ¹

Food item	Cost at salad bar compared with cost of similar items purchased elsewhere in the store
<i>More</i>	
Cucumbers; carrots; green cabbage; yellow onions; watermelon	about 4 times as much at the salad bar
Leaf and iceberg lettuce; celery; bean sprouts; red cabbage; zucchini; canned kidney beans and peas; cole slaw; macaroni and plain potato salads; hard-cooked eggs	about 3 times as much at the salad bar
Tomatoes; spinach; ² radishes; green pepper; cantaloup; canned sliced beets and chickpeas; raisins; canned pineapple; tofu; egg potato salad; cottage cheese	about 2 times as much at the salad bar
<i>Same</i>	
Mushrooms; cauliflower and broccoli florets; spring onions; strawberries; honeydew; canned grapefruit, peaches, and pears; carrot-raisin and 3-bean salads; pickled beets; salsa; rice pudding	about the same to slightly more at the salad bar
<i>Less</i>	
Alfalfa sprouts; pineapple; canned mandarin oranges; tuna; American cheese; domestic ham; sunflower seeds; croutons; chow mein noodles; jalapena peppers; pitted olives; bread pudding	about half as much to slightly less at the salad bar

¹ Based on nonsale prices in 3 Washington, DC, area supermarkets, over 3 weeks in July 1988.

² Trimmed, in retail pack.

Vegetables (carrots, celery, onions, and zucchini) used to prepare a stir-fry main dish; a side salad prepared from iceberg lettuce, spinach, carrots, green pepper, radishes, broccoli florets, and tomato wedges; and a chef's salad prepared using the same recipe as the side salad with kidney beans, American cheese, and ham added varied in cost when prepared from ingredients from the salad bar and from similar items purchased elsewhere in the store. The stir-fry ingredients cost about three times as much, the side salad cost two times as much, and the chef's salad cost

slightly more at the salad bar than when purchased elsewhere in the store. When salad bar items were on sale at half price, the stir-fry ingredients cost slightly more, the side salad cost about the same, and the chef's salad cost slightly less at the salad bar than when purchased elsewhere in the store and prepared at home. These findings demonstrate that basic salad ingredients tend to cost more and ingredients of animal origin tend to cost less from the salad bar than when purchased elsewhere in the store.

Cost Considerations

The cost data presented here can help consumers make the most effective use of their food money. Items that cost more at the salad bar tend to be basic salad ingredients. Consumers might want to consider purchasing these items elsewhere in the store and preparing them at home. Items that are less at the salad bar include salad toppings and foods of animal origin such as cheese, ham, and tuna.

Other cost-related issues to consider include:

- Although some salad bar ingredients may cost more than comparable items purchased elsewhere in the store, they may cost less overall if they help avoid food waste. This may be especially important for one- or two-person households or for those who prepare meals at home infrequently. Such households should consider, for example, whether they can use an entire head of cauliflower, a whole bunch of celery, or an entire carton of cottage cheese.
- If an item costs considerably more per pound at the salad bar than if purchased elsewhere in the store, the total added expenditure may be substantial if a large amount is purchased. However, if only a small amount is purchased, the total added expenditure could be minimal.
- If time and food preparation skills are limited, ready-to-eat ingredients from the salad bar may be worth the additional cost—prepared salad mixtures and puddings, for example.
- Costs vary according to location, supermarket, and season of the year. Fresh produce at the peak of its season will cost less than at other times of the year.
- Sale prices can affect relative costs of ingredients purchased at the salad bar and elsewhere in the store.


Nutritional Implications

Although current nationwide figures on the impact of salad bar sales on total sales of fresh produce are not available,¹ in a 1984 survey of supermarket produce executives, 84% responded that supermarket salad bars increased their existing produce sales (6). According to recent data from USDA's Economic Research Service, total per capita consumption of fresh produce,² which includes selections that are available in most salad bars, has risen since the early eighties (7). Moreover, in a 1988 nationwide consumer survey conducted by the produce industry, 60% of the respondents said that they had increased fresh vegetable consumption and about one-third were eating more fresh fruits through usage in salads (14). Perhaps increased availability of produce in salad bars in both supermarkets and in the fast food industry is contributing to this trend.

Salad bars offer a variety of fresh fruits and vegetables, which are good sources of fiber and several vitamins and minerals low in American diets (9-12). Fruits and vegetables also are low in calories, fat, and sodium, and contain no cholesterol—food components that tend to be high in American diets (9-12). Therefore, fruits and vegetables are an important part of a healthful diet—a diet that follows the Dietary Guidelines for Americans (8). Salad bars also offer items that are higher in fat, added sugar, and/or sodium, such as salad dressings, ready-prepared salad mixtures, cheese, ham, croutons, sunflower seeds, and bacon bits. From a nutritional perspective, which foods are the

"best" choice will depend on the amounts to be consumed and the consumer's selection for the rest of the day. Both cost and nutritional concerns are important in making salad bar selections.

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¹ A comprehensive supermarket produce operations survey, which includes a section on salad bar contributions to sales, is currently being conducted jointly by the Produce Marketing Association and the Food Marketing Institute. Results of this survey will be available in late 1988.

² Produce selections in the survey that are generally found at salad bars were broccoli, carrots, cauliflower, celery, lettuce, onions, tomatoes, honeydew, pineapple, and strawberries.

Dietary Intakes by Employment Status

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Data from the Continuing Survey of Food Intakes by Individuals (CSFII) conducted by USDA's Human Nutrition Information Service (HNIS) were used to compare food and nutrient intakes of women by employment status. In 1985 women employed full or part time, compared with women not employed outside the home, obtained greater proportions of their food energy and nutrients from food that was obtained and eaten away from home. In contrast, all groups of women had similar total mean intakes of most foods and nutrients. The CSFII is the first national dietary survey designed to be repeated annually, thereby providing continuous data on the adequacy of diets of selected population groups and changes in food consumption practices.

The dietary intakes of women who were, and were not, employed outside the home were compared to determine differences in total mean intakes of foods and nutrients and the proportions of food energy and nutrients from food that was obtained and eaten away from home. Results are based on data from the Continuing Survey of Food Intakes by Individuals (CSFII) conducted by USDA's Human Nutrition Information Service (HNIS)¹. The food and nutrient intakes presented here are group means for women 19 to 50 years of age, based on 1 day of dietary information collected by personal interview in the spring of 1985 (1). The women were classified by their response to a question about any work done during the week prior to the interview for which money, goods, or services were received.

¹ Previous articles on the CSFII appeared in the following issues of *Family Economics Review*: 1986 No. 2, 1987 No. 1, and 1988 No. 1.

Full-time (35 hours or more) or part-time (1 through 34 hours) status was determined by the number of hours per week usually worked during the past 3 months. The distribution of women by employment status is as follows:

Employment status	Unweighted count	Percent
Full time	640	44
Part time	250	17
Not employed	544	37

Selected demographic variables were tested using independent Chi Squares to investigate the degree of association. There were significant differences ($p < .01$) among the three employment categories for education, household income, pregnancy status, and the presence of children 1 to 5 years in the household. Selected percentages of women in these demographic categories are shown in the table below. Survey respondents were scheduled for interviews in a manner

designed to provide representative-ness of intake data by day of the week. No information was obtained on whether or not the respondents were at work on the day for which dietary data were provided. The nutrient content of foods reported in the survey was estimated using nutrient data developed by the HNIS Nutrient Data Research Branch (2, 3).

The relationships between employment and mean dietary intakes were tested using One-Way Analysis of Variance. To examine the direction of relationships and to ascertain significant group differences, TUKEYB multiple range tests were performed with significance reported at the .05 level. These techniques were based on an unweighted data set. The mean food and nutrient intakes presented in the tables were based on weighted data.

Mean food intakes were similar for women in the three employment categories for the following food groups: Meat, poultry, fish; eggs; legumes, nuts, seeds; vegetables; fruits; and sugars and sweets. Women employed full time had lower mean intakes of total milk, whole milk, cereals and pastas, and fruit drinks and ades, and higher intakes of total fats and oils, salad dressings, total beverages, and both total and diet soft drinks than women who were not employed. Additional group differences are shown in table 1 on p. 12.

Characteristics	Employment status		
	Full time	Part time Percent	Not employed
Some college or more	47	48	31
High income*	49	27	19
Pregnant	3	3	8
With children age 1 to 5 yrs	17	38	43

*Women living in households with income over 300% of the Federal poverty guidelines.

The surveyed women had similar intakes of most nutrients regardless of employment status. No differences were found among employment groups for food energy. Of the 27 nutrients and dietary components evaluated as part of the survey, only fat, vitamins A and E, and carotenes differed significantly among employment groups (table 2). Women employed part time had the highest reported levels of fat intake, whereas women who were not employed had the lowest.

In 1985, 73% of the women employed full time, 61% of the women employed part time, and 38% of the women who were not employed obtained and ate some food away from home on the surveyed day. Food away from home accounted for 36% of the energy intake of women employed full time, 32% of the energy intake of women employed part time, and 18% of the energy intake of women who were not employed (table 3). The contribution of food obtained and eaten away from home to the day's total intake of food energy and the 27 nutrients differed significantly among employment groups. Employed women obtained more of their food energy and nutrients from food obtained and eaten away from home than did women who were not employed.

The percentages of individuals reporting snacks were similar for the three employment categories (81% for women employed full time, 79% for women employed part time, and 77% for women who were not employed). There were no significant differences among employment groups in the nutritive contribution of snacks.

Table 1. Foods—mean intakes with significant F ratios by women 19 to 50 years, and significant group differences, by employment status, 1 day, spring 1985

Food group/subgroup	Employment status			Group differences ¹
	Full time (1)	Part time (2)	Not employed (3)	
<u>Grams</u>				
(p < = .01)				
Total milk	116	160	164	1&3
Whole milk	51	65	78	1&3
Other baked goods ²	53	73	44	2&3
Salad dressings	13	11	8	1&3
Total beverages ³	984	843	889	1&2, 1&3
Regular fruit drinks and ades .	33	60	66	1&2, 1&3
Total soft drinks	326	251	253	1&2, 1&3
Diet soft drinks	140	82	84	1&2, 1&3
(.01 < p < = .05)				
Yeast breads and rolls	40	49	42	1&2
Cereals and pastas	34	35	47	1&3
Total fats and oils	17	19	14	1&3, 2&3
Table fats	4	6	4	1&2
Total fruit drinks and ades ...	43	65	76	1&3

¹ TUKEYB (p < .05) computed on F ratios with p < .05.

² Other than yeast breads and rolls.

³ Other than milk and fruit juice.

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Table 2. Nutrients—mean intakes with significant F ratios by women 19 to 50 years, and significant group differences, by employment status, 1 day, spring 1985

Nutrient	Employment status			Group differences ¹
	Full time (1)	Part time (2)	Not employed (3)	
(p < .01)				
Polyunsaturated fat (grams)	14	15	12	1&3, 2&3
(.01 < p < .05)				
Total fat (grams)	69	76	65	2&3
Saturated fat (grams)	25	28	24	1&2, 2&3
Vitamin A (retinol equivalents)	776	1,092	800	1&2, 2&3
Carotenes (retinol equivalents)	389	422	319	1&3 ²
Vitamin E (alpha tocopherol equivalents)	7.9	9.7	7.0	2&3

¹ TUKEYB (p < .05) computed on F ratios with p < .05.

² There was no significant difference between groups 2&3.

Table 3. Food obtained and eaten away from home: Nutrient contributions with significant F ratios by women 19 to 50 years, by employment status, 1 day, spring 1985

Dietary component	Employment status			Group differences ¹
	Full time (1)	Part time (2)	Not employed (3)	
<u>Percentage of total intake</u>				
(p < = .01)				
Food energy	36	32	18	1&3, 2&3
Protein	35	31	18	1&3, 2&3
Total fat	37	34	19	1&3, 2&3
Carbohydrate	36	30	18	1&2, 1&3, 2&3
Vitamins, minerals, and other dietary components ²	33 to 37	27 to 35	16 to 19	1&3, 2&3

¹ TUKEYB (p < .05) computed on F ratios with p < .05.

² Vitamin A, vitamin E, vitamin B-6, vitamin B-12, ascorbic acid, thiamin, riboflavin, niacin, folacin, calcium, phosphorus, magnesium, iron, carotenes, zinc, copper, sodium, potassium, cholesterol, and dietary fiber. Also, there were significant differences between groups 1 and 2 for copper, thiamin, calcium, magnesium, and iron.

Women and the Labor Market

Labor force participation by women, as measured by the Current Population Survey,¹ has increased dramatically since the end of World War II. Until that time, however, the changes were small and gradual. Public attitudes regarding women holding jobs, especially mothers, kept them outside the labor force. Opinion changed first towards older women (who usually did not have young children). Those age 45 to 54 were the first to join the labor market in large numbers; participation rates for this older cohort soared from 30% in 1946 to 50% in 1960.

Not until the sixties did large numbers of young women begin entering the job market. A sharp decline in the birth rate, increased levels of education, and changing views about the roles of women were major contributing factors to the increased activity. In the seventies and eighties, the influx of women into the labor force was even more noticeable. After the mid-seventies, older women no longer had the highest labor force participation rate among women. By 1987 the rate was 67% for women age 45 to 54, compared with 74% and 72% for those age 35 to 44 and 25 to 34.

Characteristics of Women in the Labor Market

Employment has become the norm for most women: 71% were in the labor force in 1986. Labor force participation rates 40 years ago were about 30% for women in their prime working ages.² As recently as 1975,

a Bureau of Labor Statistics study found sharp differences in participation rates by marital status, presence of children, and ages of children. Such differences have been reduced substantially since that time. Women of the baby-boom generation have displayed different working patterns than their predecessors by not decreasing labor market activity between their early and late twenties, as their family responsibilities grew. Increases in labor force attachment have occurred for women in each marital status and age group. Even among mothers of infants and toddlers, more than half were in the labor force in 1987 (see table).

Until the mid-sixties, when labor force rates for white women increased rapidly, black women had a much higher participation rate. By 1987 rates for both white and black women were similar (72% and 74%, respectively). Hispanic women, however, were much less likely to be in the labor force (61%) because of high birth rates, lower educational levels, and cultural attitudes that emphasize women's home and family roles.

Work Commitment

The number of hours worked per week is one measure of the intensity of a person's attachment to the labor market. Of employed women in 1986, 78% worked full time (35 hours or more per week); an additional 5% worked fewer hours but wanted full-time employment.

The number of weeks worked per year is also an indication of job commitment. In 1986, 68% of employed women worked the full year and 57% worked full time, year-round. Although women tend to work fewer hours per week than men (37 hours compared with 44 hours), over the past two decades there has been some convergence in their work patterns both in terms of hours worked per week and weeks worked per year.

Projections³

Projections of future labor market activity presume a continued increase in female labor force participation between 1986 and 2000, but at a much slower rate than in the

³ Projections were made by the Bureau of Labor Statistics.

Labor force participation rates of women, March 1987

Characteristic	Years of age			
	25 to 34	35 to 44	45 to 54	
	Percent			
Marital status:				
Never married	81.5	82.9	81.8	68.5
Married, husband present	68.1	67.5	71.7	64.0
Married, husband absent	70.9	68.2	76.0	67.6
Widowed	65.7	52.7	68.7	66.5
Divorced	84.7	83.3	87.3	82.7
Presence of children under 18:				
Without children	79.0	89.0	82.1	68.1
With children	66.7	63.1	71.7	63.8
Age of youngest child (years):				
14 to 17	74.8	82.4	78.7	67.8
6 to 13	72.0	72.9	73.8	58.7
3 to 5	62.4	63.1	61.1	52.7
Under 3	55.2	55.2	55.9	(1)

¹ Participation rate not shown where population is less than 75,000.

Source: Shank, Susan E., 1988, Women and the labor market: the link grows stronger, *Monthly Labor Review* 111(3):3-8, U.S. Department of Labor, Bureau of Labor Statistics.

¹ The Current Population Survey is a monthly household survey, conducted for the Bureau of Labor Statistics, U.S. Department of Labor, by the Bureau of the Census, U.S. Department of Commerce.

² Labor force participation rates given are for women age 25 to 54, unless otherwise noted, since most people of these ages have completed school and have not started to withdraw permanently from the labor force.

previous two decades. The rate is projected to increase 10 percentage points by 2000 (from 71% to 81%), compared with a 20-point increase between 1972 and 1986. This slowdown in participation is expected because female participation rates are already at relatively high levels, and projections assume that rates for women will not exceed those for men, whose labor force participation is expected to edge further down. Also, during the nineties the baby-boom generation will be entering the 45- to 54-year-old group, whose participation rates are typically lower.

Source: Shank, Susan E., 1988, Women and the labor market: the link grows stronger, *Monthly Labor Review* 111(3):3-8, U.S. Department of Labor, Bureau of Labor Statistics.

Aging in the Eighties — People Living Alone

Older people who live alone are more likely to become institutionalized than people who live with others, and the risk increases with age. Also, persons with strong social networks are more likely to survive and remain healthy than those without such interaction. In 1984 the Supplement on Aging to the National Health Interview Survey collected information from 16,148 people age 55 years and over. This supplement was designed to be the basis for a family of longitudinal studies known collectively as the Longitudinal Study of Aging. A sample of 5,151 persons who were age 70 years and over in 1984 were selected to be reinterviewed in 1986. Of these, 1,921 had been living alone in 1984. Many of the people living alone in 1984 had living children or siblings, had recent contact with family or

friends, or lived in housing without major barriers to movement. Persons who lack one or more of these social and environmental attributes may be at high risk of institutionalization.

In 1984 there were about 17 million people age 70 years and over living in the community in the United States. There were 6 million living alone, 7 million living with a spouse only, and 4 million living with other persons. A sizable proportion of this last group were living with other people because of health problems and, therefore, were at a high risk of death or institutionalization.

Although persons living alone in 1984 were older, on the average, than those living with others, they were not more likely to have died during the interim between interviews. The majority of the people living alone were women, whose life expectancy exceeds men's. Of the people age 70 years and over and living alone in 1984, 78% were still living alone 2 years later, 10% had died, and 7% were living with others in the community. Older people who had been living alone were more likely than those living with others to be in a nursing home 2 years later, 5% and 3% respectively. Only 8% of the people age 70 years and over and living alone were receiving help with one or more activities of daily living (ADL).¹ These people were more likely than those not receiving help with ADL's to be in a nursing home (16% and 6%) or to have died 2 years later (25% and 11%).

The association between social and environmental characteristics and the elderly's survival or their ability to remain in the community should be evaluated for people who were not already receiving help at the beginning of the study. When only people who were living without assistance in 1984 are considered, the data from the reinterview in 1986

show that (1) people who had recent contact with friends or neighbors are more likely to be alive, and (2) people with children whom they see daily are significantly more likely to live with others 2 years later. People in need of appropriate housing were significantly more likely to have died or to be institutionalized 2 years later than people who did not have such a need.

The 2-year timespan between interviews is a very short period in which to observe change. Older people who are not already dependent on others are not very likely to die or become institutionalized in that period of time. It will take a longer time period (with more opportunity for change to occur) to confirm relationships suggested by the data.

Source: Kovar, Mary Grace, 1988, *Aging in the Eighties. People Living Alone—Two Years Later*, Advance Data From Vital and Health Statistics, No. 149, DHHS Publication No. (PHS)88-1250. U.S. Department of Health and Human Services, Public Health Service.

¹Activities of daily living include bathing, eating, dressing, transferring, walking, getting outside, or using the toilet.

Expenditures of Urban and Rural Households

Expenditures in 1985

Rural households accounted for about 16% of total U.S. units in 1985, but the percentage varied greatly by region of the country—almost 22% of the population in the South was classified as rural, 19% in the Midwest, 12% in the Northeast, and only 9% in the West. In 1985, urban households averaged higher incomes before taxes (\$26,241) than did rural households (\$19,708) and had higher levels of total expenditures (see table). Rural consumers spent a larger portion of their income (97%) than did urban consumer units (87%). Urban households had slightly fewer members and were headed by persons about 2 years younger than heads of rural households. Rural consumers owned more vehicles and were more likely to own their own homes. The number of earners, children under age 18, and persons over age 65 were about the same for the two populations.

Urban consumers spent an average of \$22,810 in 1985, compared with \$19,197 spent by rural consumers. In 1985, expenditure levels were higher in urban households for food, housing, apparel, personal care, education, entertainment, personal insurance and pensions, and cash contributions. Rural consumers had higher expenditures for transportation and health care.

Expenditure shares (the percent of total expenditures spent on each component of the household budget) were compared for the two populations, and significant differences were found in many expenditure categories. Urban households spent 31% of their total expenditures on housing, compared with 26% spent by rural households. However, 38%

of rural households had paid off their mortgage, compared with 21% of urban households. The expenditure share for transportation was larger for rural consumers (25%, versus 20% for urban consumers). Rural consumers own more vehicles and probably drive longer distances than urban consumers. The expenditure share for health care accounted for 6% of rural consumers' total expenditures, versus 4% of urban consumers' total. Rural consumers were older than urban consumers and less likely to have employer-paid health insurance policies.

Changes from 1972-73 to 1985

There was little change in the proportion of the total population that was rural between 1972-73 and 1985. The number of persons in the household and the average age of the household head decreased slightly for both urban and rural households over the period, whereas the percentage of homeowners increased by 3% for both groups.

Increased expenditures for housing and transportation accounted for much of the overall increase in spending between 1972-73 and 1985 for both urban and rural consumers.

Expenditure shares for urban and rural consumer units, Interview Survey, 1972-73 and 1985¹

Item	Urban		Rural	
	1972-73	1985	1972-73	1985
	<u>Percent</u>			
Food	17.8	15.2	19.5	15.6
Food at home	(2)	10.3	(2)	11.5
Food away	(2)	5.0	(2)	4.2
Housing	28.0	30.7	24.5	26.4
Shelter	16.0	17.9	11.5	13.6
Fuels and utilities	6.2	7.3	7.6	8.2
Household operations	1.5	1.6	1.1	1.3
Housefurnishings and equipment ..	4.4	3.9	4.4	3.3
Apparel and services	7.8	5.4	6.8	4.4
Transportation	18.7	19.8	22.0	25.0
Vehicles	7.5	8.6	9.6	12.6
Gasoline and motor oil	4.3	4.4	5.7	6.0
Health care	4.6	4.4	5.8	6.1
Entertainment	4.1	4.9	3.9	4.7
Personal care	1.1	.9	1.0	.7
Reading5	.6	.5	.6
Education	1.3	1.4	1.0	1.1
Tobacco	1.4	.9	1.5	1.3
Miscellaneous	1.1	1.6	1.0	1.1
Cash contributions	3.9	3.8	3.8	2.8
Personal insurance and pensions ...	8.7	9.1	8.2	9.1
Life and other personal insurance ..	3.9	1.2	3.6	1.7
Retirement, pensions, and Social Security	4.8	7.9	4.5	7.5
	<u>Dollars</u>			
Income before taxes	12,349	26,241	10,039	19,708
Total expenditures	9,420	22,810	7,760	19,197

¹ Expenditure shares are the percent of total expenditures spent on each component.

² Data not available.

Source: Rogers, John M., Research Summaries: 1988, Expenditures of urban and rural consumers, 1972-73 to 1985, *Monthly Labor Review* 111(3):41-45, U.S. Department of Labor, Bureau of Labor Statistics.

Although expenditures for some other components increased at a faster rate, housing and transportation (which were a larger share of consumers' total spending) rose faster than the average. Expenditures on owned dwellings rose faster than average for both populations, whereas expenditures on rented dwellings rose at a slower rate than that for total housing. Rising gasoline prices, which contributed to sharp increases in expenditures in the seventies, were offset by subsequent price decreases and conservation measures. Prices for motor fuel, motor oil, coolant, and other related products rose 211% from 1973 to 1985. Average fuel consumption per car dropped by 24% from 1973 to 1984 as average miles per gallon for cars improved 28% over that period.

Expenditures for other lodging (vacation homes and out-of-town lodging) rose faster for urban than for rural households, as did expenditures for miscellaneous goods and services (bank, legal, and accounting fees; funerals; cemetery lots; union dues; occupational expenses; and finance charges other than for mortgages and vehicles).

Changes in the shares of total expenditures spent on different components reflect how consumers' expenditure patterns change over time. Between 1972-73 and 1985, food, apparel, and personal insurance expenditure shares diminished for both urban and rural consumers. In contrast, expenditure shares for housing and for retirement, pensions, and Social Security increased steadily over this time period for both populations. Transportation expenditure shares also rose over the period. Increases in vehicle expenditures were responsible for larger increases in the overall transportation component for rural consumers than for urban consumers.

Source: Rogers, John M., Research Summaries: 1988, Expenditures of urban and rural consumers, 1972-73 to 1985, *Monthly Labor Review* 111(3):41-45, U.S. Department of Labor, Bureau of Labor Statistics.

1990 Census — Proposed Change in Question on Race

The Bureau of the Census is planning a change in the question on race for the 1990 Census. To ensure the most complete reporting for all racial groups, this question, included in every Census since 1790, has changed throughout the years to reflect changes in American society.

Change from 1980

The race question¹ proposed for the 1990 Census will include seven categories — White, Black or Negro, Asian or Pacific Islander, American Indian, Eskimo, Aleut, and Other. In the 1980 Census, the race question listed specific groups under the Asian/Pacific category. A new feature of the proposed 1990 version is a write-in space for entering the specific group under the Asian/Pacific Islander category, for example, Chinese, Hawaiian,

¹ A separate question deals with Hispanic origin or descent.

Vietnamese, and so forth (see figure). This format is similar to that used in 1980 for persons identifying themselves as American Indians, which had a write-in space for specifying their tribe.

Data Available in 1991

The proposed race question for 1990 will allow the Census Bureau to continue to gather the most accurate data on race. Beginning in early 1991, data will be published on white; black; total American Indian, Eskimo, Aleut; and total Asian and Pacific Islander population groups. Based on write-in entries, the Census Bureau plans to release 100% population counts for at least 26 Asian and Pacific Islander groups and 200 American Indian tribes beginning in mid-1991. This timetable is considerably earlier than after the 1980 Census, which produced 100% data for only nine Asian/Pacific Islander groups and only sample data for American Indian tribes.

Source: U.S. Department of Commerce, Bureau of the Census, 1988, *Census and You*, 23(6).

4. Race	
Fill ONE circle for the race that the person considers himself/herself to be.	
<input type="radio"/> If Asian or Pacific Islander, print one group. →	<input type="radio"/> White <input type="radio"/> Black or Negro <input type="radio"/> Asian or Pacific Islander (Print one group, for example: Chinese, Filipino, Asian Indian, Japanese, Laotian, Hawaiian, Korean, Samoan, Vietnamese, etc. → <input type="text"/>
<input type="radio"/> If Indian (Amer.), print the name of the enrolled or principal tribe. →	<input type="radio"/> Indian (Amer.) (Print the name of the enrolled or principal tribe) → <input type="text"/>
<input type="radio"/> If Other race, print race. →	<input type="radio"/> Eskimo <input type="radio"/> Aleut <input type="radio"/> Other race (Print race) → <input type="text"/>

Source: U.S. Department of Commerce, Bureau of Labor Statistics.

Results of the 1986 Consumer Expenditure Survey

According to the 1986 Consumer Expenditure Survey, Americans spent an average of \$22,710 on household expenditures, a 2.2% increase from the 1985 Survey. Housing continued to be the largest expense but rose only a modest 3% during this period.

Increased spending on cars and decreased spending on food are trends that have been evident since 1980. The 1986 Survey showed that between 1985 and 1986 expenditures increased 18% for new cars and trucks and 11% for used vehicles, although prices for new vehicles as measured by the Consumer Price Index increased by 4% during the period and prices for used vehicles decreased by 4%. Food expenditures dropped slightly; however, as a

share of overall expenditures food has declined steadily in recent years— from 19% in 1980 to less than 15% by 1986. This trend can be attributed entirely to decreased spending on food at home. Spending on food away from home increased almost 3% from 1985 to 1986. Between 1980 and 1986, the share of the total food dollar spent away from home rose from 31% to 37%.

Expenditures for natural gas and fuel oil fell considerably due to the decline in their prices (10% and 16%, respectively), whereas spending for the survey's overall utilities, fuels, and public services component showed little change. Expenditures for electricity rose 4%. Spending on apparel declined slightly from 1985 to 1986, but health care expenditures showed a 2% increase. Expenditures for public transportation and cash contributions each dropped about 7%. Personal insurance and pensions expenditures, up almost 6% between 1985 and 1986, have shown large increases since 1980 in

response to the rising Social Security contribution rate and the maximum amount of income to which the rate applies. Spending on video and sound equipment continued to increase (5% from 1985 to 1986) but at a slower rate than earlier (15% from 1984 to 1985).

Overall, expenditures accounted for 89% of total household income. However, the Survey shows substantial differences in the proportion of income used for expenditures by family type. Single-parent families spend the highest percentage of their income on living expenses, and childless couples spend the lowest (see table).

Source: U.S. Department of Labor, Bureau of Labor Statistics, 1988, *Consumer Expenditure Survey Results From 1986*, News USDL Publication No. 88-175.

Average Income, number in the household, and annual expenditures as a percent of income, for selected family types, Interview Survey, 1986

Item	All consumer units	Husband/wife families				Single parent	Single consumer unit
		With children ¹			Couples without children		
		Under 6 years	6 to 17 years	18 years and older			
Income ²	\$25,481	\$30,282	\$35,530	\$39,868	\$29,738	\$13,807	\$16,182
Number in consumer unit	2.6	3.4	4.2	4.0	2.0	2.9	1.5
		<u>Percent</u>					
Total expenditures	89.1	89.0	87.7	85.8	85.4	110.9	93.9
Food	13.2	11.5	13.5	13.7	11.7	19.8	13.8
Housing	27.0	30.8	26.6	21.1	24.9	40.4	30.2
Apparel and services	4.5	4.1	4.6	4.5	4.0	6.9	5.0
Transportation	18.8	20.0	18.7	20.7	18.4	19.5	18.1
Health care	4.2	3.4	3.1	3.8	4.8	3.9	4.8
Entertainment	4.3	4.1	5.3	4.0	3.9	4.8	4.1
Personal insurance and pension	8.4	9.0	8.9	9.3	8.8	7.2	7.0
Other ³	8.7	6.1	7.0	8.7	8.9	8.4	10.9

¹ Age refers to oldest child.

² Annual income before taxes; complete income reporters only.

³ Other includes alcoholic beverages, personal care, reading, education, cash contributions, tobacco, and miscellaneous expenses.

Source: U.S. Department of Labor, Bureau of Labor Statistics, 1988, *Consumer Expenditure Survey Results From 1986*, News USDL Publication No. 88-175.

Computer Use in the United States

This report from the Bureau of the Census, U.S. Department of Commerce, is a first attempt at providing information on computer use at a national level. Data are from a special supplement to the October 1984 Current Population Survey conducted by the Census Bureau. The inclusion in the survey of a series of items on computers was sponsored by the National Center for Education Statistics.

In October 1984, 8% of all U.S. households reported having a home computer. Computer ownership was most likely in households with income of \$50,000 or more (23%). Of persons age 3 and over, 21% had used a computer at home, school, or work by the fall of 1984.

Use by Children at Home

Among children 3 to 17 years old, 30% used a computer at home or at school. About 15% of these children had access to a computer at home, and 74% used it. Children most likely to have a computer at home were white, male, non-Hispanic, and lived in the Northeast.

The ability to afford a home computer is a determinant for who uses them. The probability of having a computer at home increased significantly as the education of the householder and family income increased. Only 4% of the children in households where the householder had 0 to 8 years of school had a home computer, compared with 30% of the children living with householders who had 4 or more years of college. Of children in families with income below \$10,000, 3% had a home computer, compared with 37% of the children in households with income above \$50,000.

Use by Students

Of the 45.6 million students ages 3 to 17 enrolled in school in 1984, 28% were identified as using a computer. Students most likely to use a computer at school were age 10 to 13 years (38%) and 14 to 17 years (29%). Children in the Midwest showed the highest levels of school use (34%), whereas those in the South showed the lowest (21%). School use by children generally becomes more likely with increases in either householder's educational attainment or family income, suggesting a possible indirect effect of family socioeconomic status on computer use through the quality and equipping of schools.

Of the more than 13 million adults who were in school or college in the fall of 1984, a substantial proportion (about 31%), were using a computer at school. Use was more likely by persons of other¹ races (38%) and by males (36%). Computer usage also differed by enrollment status. Although computer use in school was more likely for students who were enrolled full time, part-time students experienced greater overall combined rates of use at home, school, and work.

Use by Adults

Overall use of computers by adults was somewhat less than that experienced by children. In 1984, 18% of the adult population age 18 and over reported that they used a computer either at home, work, school, or in more than one of these places. Direct use ("hands on" use of computers with typewriter-like keyboards) of a computer at work was reported by 25% of the employed adult population. Usage rates were highest among persons who were age 25 to 44, white, male, and single. Computer use was positively associated with the education of the individual.

¹ Includes Indians, Japanese, Chinese, and any other race except white and black.

Home Access by Adults

Fifteen million adults age 18 and over (9%) had a computer at home; persons living in married-couple households were more likely to have a computer available at home (11%). Persons age 35 to 44 were most likely to live in a household with a computer (17%), whereas persons age 65 and over were least likely (2%). Persons age 35 to 44 may be the most likely to own a home computer because they are the most likely to have children at home.

The probability of having a computer at home increased with both family income and the education of the individual, with 22% of persons in households with yearly incomes of \$50,000 or more and 18% of persons with 4 or more years of college education reporting ownership. Across occupational categories, persons who held managerial or professional positions (18%) were most likely to have a computer at home. Whereas, in terms of regional differences, persons in the South were the least likely to have a computer in their home.

Home Use

Over one-half of all adults with a computer in their home reported actually using it. Males have rates of home use (63%) that are substantially higher than those for women (43%), and use rates by persons age 25 to 34 are the highest of any age group examined (65%). Home use also increases with the education of the individual, and is most likely for persons in managerial and professional positions (65%). Rate of home use is similar among persons living in low-income (less than \$10,000) households (54%) and persons in households with income exceeding \$50,000 (56%) given that a home computer is available.

Use at Work

Use of a computer at work was significantly more likely with higher levels of education. Persons in managerial and professional

245

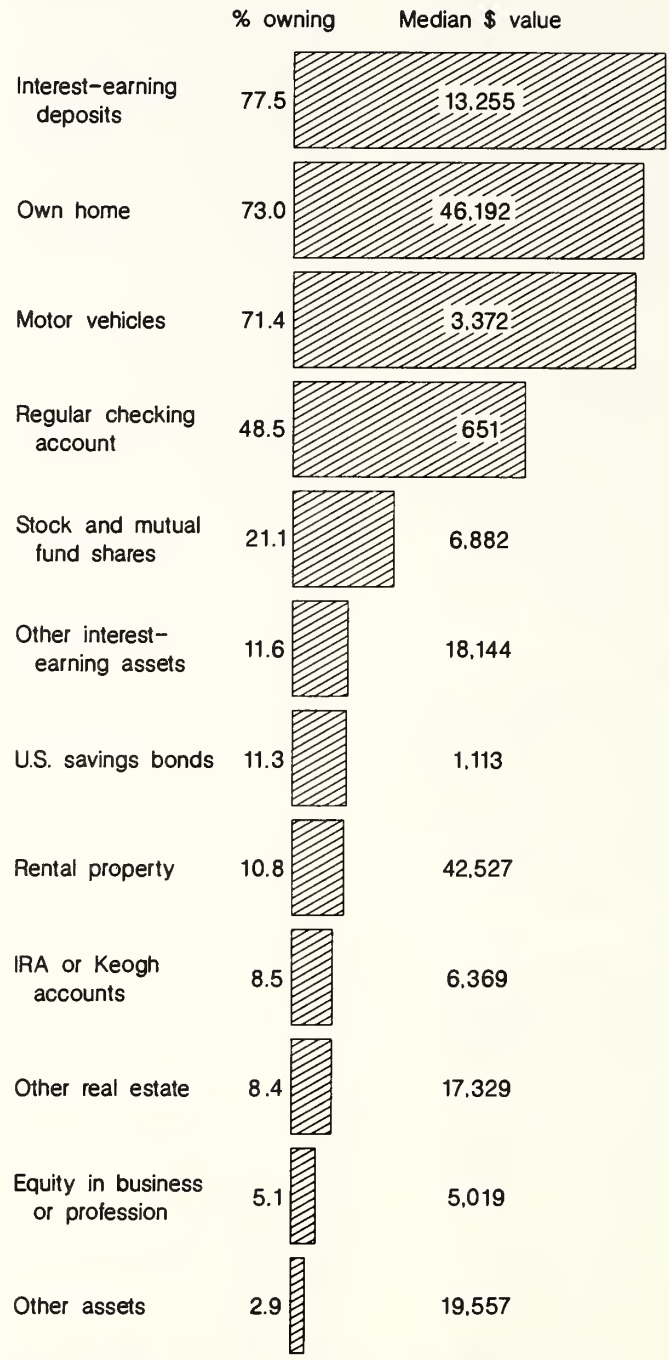
New USDA Charts

positions and technical and administrative positions had the highest rates of use at work (39% each). A higher rate of computer use at work was reported by women (29%) than by men (21%). This higher usage rate by women may be due to the jobs they hold. Persons in the occupational category of "technical, sales, and administrative support" (including such occupations as sales clerks, secretaries, and administrative clerical workers) account for 19% of all working men and 45% of all working women. Within this category, computer use at work was reported by 33% of males and 39% of females. Although workers in the "finance, insurance, and real estate" industry do not account for a large proportion of all workers (9% of women, 5% of men), 60% of the women and 44% of the men in these occupations used a computer on the job. Workers in this industry include persons such as bank tellers and data keyers.

Source: Kominski, Robert, 1988, Computer Use in the United States: 1984. Current Population Reports, Special Studies, Series P-23, No. 155, U.S. Department of Commerce, Bureau of the Census.

Chart 138

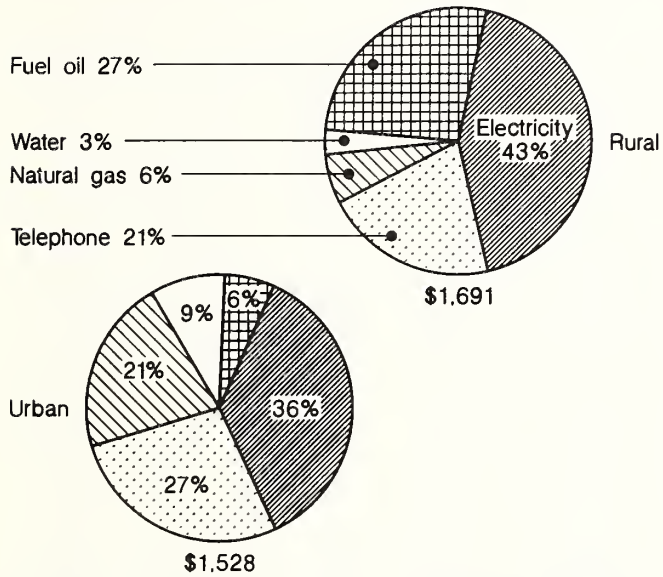
Ownership of Assets by the Elderly



1984 data. Median net worth: age 65-69, \$66,621; age 70-74, \$60,573; age 75 and over, \$55,178. Source: Bureau of the Census.

Chart 144

Distribution of Utility Expenditures

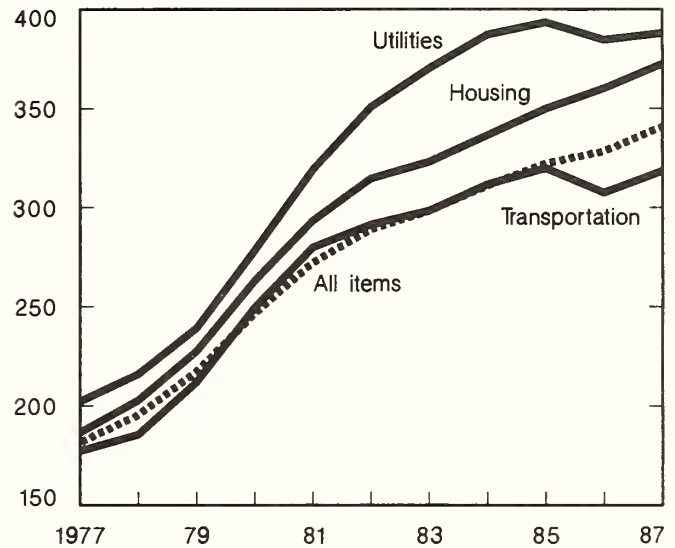


1983 Consumer Expenditure Survey data. Source: Bureau of Labor Statistics.

Chart 141

Changes in Consumer Prices for Housing, Utilities, and Transportation

% of 1967

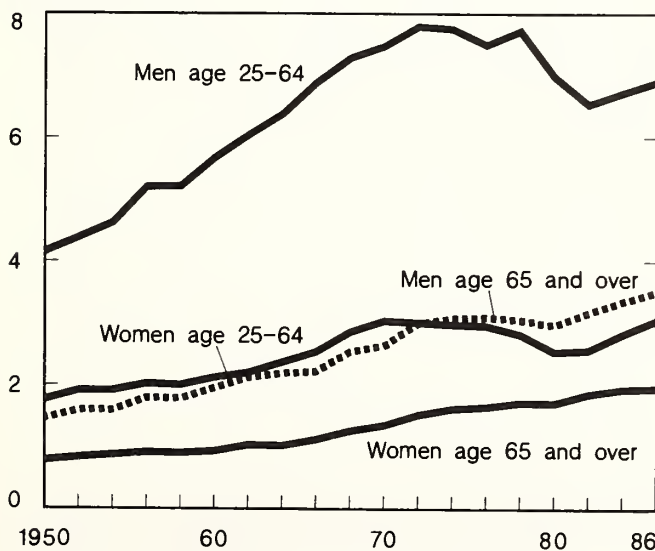


Annual averages 1977-86; July data for 1987. Source: Bureau of Labor Statistics.

Chart 139

Median Income by Age and Sex

\$ 1967 thousand

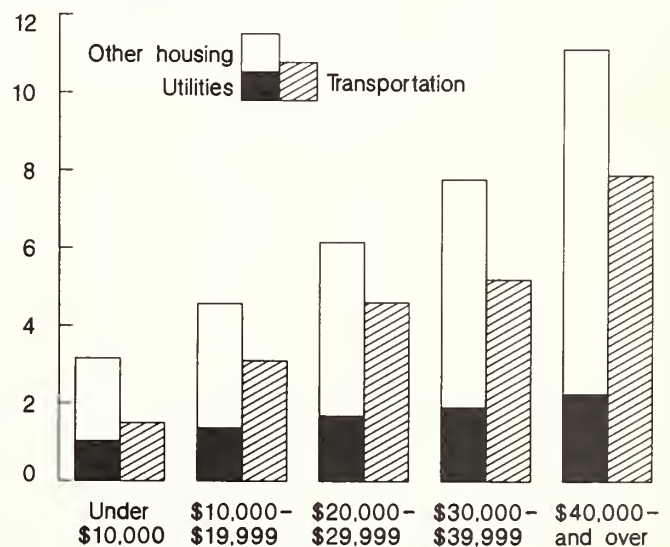


Median income in 1967 dollars. Source: Bureau of the Census.

Chart 142

Housing and Transportation Expenditures by Income Level

\$ thousand



1983 Consumer Expenditure Survey data. Source: Bureau of Labor Statistics.

Updated Estimates of the Cost of Raising a Child

The cost of raising urban children: June 1988; moderate cost level¹

Region and age of child (years)	Total	Food at home ²	Food away from home	Clothing	Housing ³	Medical care	Educational	Transportation	All other ⁴
MIDWEST:									
Under 1	\$4,879	\$634	\$0	\$153	\$2,090	\$365	\$0	\$900	\$737
1	5,023	778	0	153	2,090	365	0	900	737
2-3	4,679	778	0	249	1,836	365	0	784	667
4-5	4,958	893	164	249	1,836	365	0	784	667
6	5,207	864	164	345	1,741	365	172	784	772
7-9	5,409	1,066	164	345	1,741	365	172	784	772
10-11	5,611	1,268	164	345	1,741	365	172	784	772
12	5,983	1,296	196	499	1,805	365	172	842	808
13-15	6,128	1,441	196	499	1,805	365	172	842	808
16-17	6,711	1,613	196	690	1,868	365	172	929	878
Total	99,621	20,197	2,488	6,748	32,926	6,570	2,064	14,866	13,762
NORTHEAST:									
Under 1	4,839	749	0	153	2,121	365	0	784	667
1	5,012	922	0	153	2,121	365	0	784	667
2-3	4,886	893	0	269	1,931	365	0	726	702
4-5	5,165	1,008	164	269	1,931	365	0	726	702
6	5,583	1,008	196	364	1,900	365	216	726	808
7-9	5,785	1,210	196	364	1,900	365	216	726	808
10-11	6,044	1,469	196	364	1,900	365	216	726	808
12	6,402	1,469	196	537	1,963	365	216	813	843
13-15	6,575	1,642	196	537	1,963	365	216	813	843
16-17	7,040	1,815	229	671	1,995	365	216	871	878
Total	105,186	23,074	2,746	7,056	35,208	6,570	2,592	13,822	14,118
SOUTH:									
Under 1	5,319	691	0	173	2,248	406	0	958	843
1	5,463	835	0	173	2,248	406	0	958	843
2-3	5,127	807	0	269	1,995	406	0	842	808
4-5	5,377	893	164	269	1,995	406	0	842	808
6	5,738	893	196	364	1,900	406	259	842	878
7-9	5,911	1,066	196	364	1,900	406	259	842	878
10-11	6,141	1,296	196	364	1,900	406	259	842	878
12	6,538	1,296	229	537	1,963	406	259	900	948
13-15	6,711	1,469	229	537	1,963	406	259	900	948
16-17	7,193	1,613	229	690	2,026	406	259	987	983
Total	108,600	20,538	2,878	7,134	35,780	7,308	3,108	15,910	15,944
WEST:									
Under 1	5,241	691	0	153	2,185	446	0	958	808
1	5,414	864	0	153	2,185	446	0	958	808
2-3	5,143	835	0	249	1,963	446	0	842	808
4-5	5,455	951	196	249	1,963	446	0	842	808
6	5,892	922	229	364	1,931	446	216	871	913
7-9	6,094	1,124	229	364	1,931	446	216	871	913
10-11	6,353	1,383	229	364	1,931	446	216	871	913
12	6,693	1,383	229	518	1,995	446	216	958	948
13-15	6,837	1,527	229	518	1,995	446	216	958	948
16-17	7,493	1,729	262	652	2,090	446	216	1,045	1,053
Total	110,921	21,609	3,206	6,862	35,968	8,028	2,592	16,432	16,224

¹ Annual cost of raising a child from birth to age 18, by age, in a husband-wife family with no more than 5 children. For more information on these and additional child cost estimates, see USDA Miscellaneous Publication No. 1411, "USDA Estimates of the Cost of Raising a Child: A Guide to Their Use and Interpretation," by Carolyn S. Edwards, Family Economics Research Group, Agricultural Research Service, USDA.

² Includes home-produced food and school lunches.

³ Includes shelter, fuel, utilities, household operations, furnishings, and equipment.

⁴ Includes personal care, recreation, reading, and other miscellaneous expenditures.

The cost of raising rural nonfarm children: June 1988; moderate-cost level¹

Region and age of child (years)	Total	Food at home ²	Food away from home	Clothing	Housing ³	Medical care	Educa-tion	Transpor-tation	All other ⁴
MIDWEST:									
Under 1	\$4,608	\$576	\$0	\$134	\$1,995	\$365	\$0	\$871	\$667
1	4,752	720	0	134	1,995	365	0	871	667
2-3	4,228	691	0	211	1,678	325	0	726	597
4-5	4,475	807	131	211	1,678	325	0	726	597
6	4,862	807	164	326	1,646	325	172	755	667
7-9	5,035	980	164	326	1,646	325	172	755	667
10-11	5,265	1,210	164	326	1,646	325	172	755	667
12	5,659	1,210	164	499	1,710	325	172	842	737
13-15	5,803	1,354	164	499	1,710	325	172	842	737
16-17	6,229	1,498	196	614	1,741	365	172	871	772
Total	92,789	18,727	2,294	6,292	30,900	6,010	2,064	14,286	12,216
NORTHEAST:									
Under 1	5,351	691	0	153	2,248	365	0	1,016	878
1	5,495	835	0	153	2,248	365	0	1,016	878
2-3	5,251	807	0	249	2,058	365	0	929	843
4-5	5,562	922	196	249	2,058	365	0	929	843
6	6,007	922	229	364	2,026	365	259	929	913
7-9	6,180	1,095	229	364	2,026	365	259	929	913
10-11	6,439	1,354	229	364	2,026	365	259	929	913
12	6,823	1,354	229	556	2,090	365	259	987	983
13-15	6,996	1,527	229	556	2,090	365	259	987	983
16-17	7,595	1,700	262	729	2,153	365	259	1,074	1,053
Total	112,898	21,234	3,206	7,168	37,550	6,570	3,108	17,418	16,644
SOUTH:									
Under 1	5,522	691	0	173	2,248	406	0	1,161	843
1	5,638	807	0	173	2,248	406	0	1,161	843
2-3	5,114	778	0	269	1,931	406	0	958	772
4-5	5,425	893	196	269	1,931	406	0	958	772
6	5,686	864	196	364	1,868	406	216	929	843
7-9	5,859	1,037	196	364	1,868	406	216	929	843
10-11	6,090	1,268	196	364	1,868	406	216	929	843
12	6,535	1,268	229	556	1,931	406	216	1,016	913
13-15	6,679	1,412	229	556	1,931	406	216	1,016	913
16-17	7,240	1,585	262	786	1,963	406	216	1,074	948
Total	108,733	20,025	3,008	7,402	35,078	7,308	2,592	17,940	15,380
WEST:									
Under 1	5,749	691	0	153	2,280	446	0	1,161	1,018
1	5,893	835	0	153	2,280	446	0	1,161	1,018
2-3	5,325	807	0	249	1,963	406	0	987	913
4-5	5,636	922	196	249	1,963	406	0	987	913
6	6,114	893	196	384	1,931	446	259	987	1,018
7-9	6,316	1,095	196	384	1,931	446	259	987	1,018
10-11	6,546	1,325	196	384	1,931	446	259	987	1,018
12	6,991	1,325	229	575	1,995	446	259	1,074	1,088
13-15	7,164	1,498	229	575	1,995	446	259	1,074	1,088
16-17	7,837	1,700	262	671	2,121	446	259	1,219	1,159
Total	115,875	21,031	3,008	7,248	36,220	7,868	3,108	18,926	18,466

¹Annual cost of raising a child from birth to age 18, by age, in a husband-wife family with no more than 5 children. For more information on these and additional child cost estimates, see USDA Miscellaneous Publication No. 1411, "USDA Estimates of the Cost of Raising a Child: A Guide to Their Use and Interpretation," by Carolyn S. Edwards, Family Economics Research Group, Agricultural Research Service, USDA.

²Includes home-produced food and school lunches.

³Includes shelter, fuel, utilities, household operations, furnishings, and equipment.

⁴Includes personal care, recreation, reading, and other miscellaneous expenditures.

Cost of Food at Home

Cost of food at home estimated for food plans at 4 cost levels, September 1988, U.S. average ¹

Sex-age group	Cost for 1 week				Cost for 1 month			
	Thrifty plan	Low-cost plan	Moderate-cost plan	Liberal plan	Thrifty plan	Low-cost plan	Moderate-cost plan	Liberal plan
FAMILIES								
Family of 2: ²								
20-50 years	42.70	53.80	66.60	82.70	185.00	233.20	288.20	358.40
51 years and over	40.40	51.80	63.90	76.70	175.10	224.20	277.00	331.90
Family of 4:								
Couple, 20-50 years and children —								
1-2 and 3-5 years	62.10	77.40	94.80	116.40	269.00	335.40	410.30	504.40
6-8 and 9-11 years	71.20	90.90	113.90	137.30	308.70	394.00	493.30	595.00
INDIVIDUALS ³								
Child:								
1-2 years	11.20	13.60	15.90	19.10	48.40	59.00	68.70	83.00
3-5 years	12.10	14.90	18.40	22.10	52.40	64.40	79.60	95.60
6-8 years	14.80	19.70	24.60	28.70	64.20	85.20	106.70	124.50
9-11 years	17.60	22.30	28.80	33.40	76.30	96.80	124.60	144.70
Male:								
12-14 years	18.40	25.30	31.70	37.10	79.60	109.70	137.20	160.90
15-19 years	19.00	26.20	32.50	37.70	82.40	113.40	140.80	163.50
20-50 years	20.40	26.00	32.60	39.50	88.30	112.70	141.30	171.00
51 years and over	18.50	24.80	30.50	36.70	80.30	107.30	132.30	158.80
Female:								
12-19 years	18.20	21.90	26.60	32.20	79.00	95.00	115.30	139.50
20-50 years	18.40	22.90	27.90	35.70	79.90	99.30	120.70	154.80
51 years and over	18.20	22.30	27.60	33.00	78.90	96.50	119.50	142.90

¹ Assumes that food for all meals and snacks is purchased at the store and prepared at home. Estimates for the thrifty food plan were computed from quantities of foods published in *Family Economics Review* 1984(1). Estimates for the other plans were computed from quantities of foods published in *Family Economics Review* 1983(2). The costs of the food plans are estimated by updating prices paid by households surveyed in 1977-78 in USDA's Nationwide Food Consumption Survey. USDA updates these survey prices using information from the Bureau of Labor Statistics, CPI Detailed Report, table 3, to estimate the costs for the food plans.

² 10 percent added for family size adjustment. See footnote 3.

³ The costs given are for individuals in 4-person families. For individuals in other size families, the following adjustments are suggested: 1-person — add 20%; 2-person — add 10%; 3-person — add 5%; 5- or 6-person — subtract 5%; 7- or more-person — subtract 10%.

Consumer Prices

Consumer Price Index for all urban consumers [1982-84 = 100]

Group	Unadjusted indexes			
	Sept. 1988	Aug. 1988	July 1988	Sept. 1987
All items	119.8	119.0	188.5	115.0
Food	120.2	119.4	188.8	114.1
Food at home	119.0	118.1	117.3	112.4
Food away from home	123.0	122.5	122.1	118.0
Housing	119.9	119.5	119.1	115.6
Shelter	128.4	128.2	127.4	122.5
Renters' costs	134.7	135.6	134.7	129.8
Rent, residential	129.1	128.4	127.8	124.4
Homeowners' costs	132.6	131.8	131.0	126.0
Maintenance and repairs	115.3	115.0	114.5	112.7
Maintenance and repair services	118.1	118.1	117.9	116.3
Maintenance and repair commodities	111.7	110.8	110.1	107.8
Fuel and other utilities	106.4	106.1	106.0	105.5
Fuel oil and other household fuel commodities	75.9	76.3	76.9	77.6
Gas (piped) and electricity	108.5	108.3	108.1	108.2
Household furnishings and operation	110.1	109.7	109.8	107.5
Housefurnishings	105.7	105.3	105.5	103.9
Housekeeping supplies	115.5	114.8	115.2	111.8
Housekeeping services	115.5	115.1	115.0	111.0
Apparel and upkeep	117.8	112.6	112.7	113.3
Apparel commodities	116.2	110.7	110.8	111.8
Men's and boys' apparel	115.2	111.6	111.9	110.6
Women's and girl's apparel	118.1	109.9	109.8	115.3
Infants' and toddlers apparel	119.0	118.2	116.2	112.1
Footwear	112.2	107.4	108.2	105.7
Apparel services	124.4	124.0	123.4	119.9
Transportation	109.7	109.6	108.9	106.1
Private transportation	108.6	108.6	107.8	105.4
New vehicles	116.2	115.9	116.1	113.8
Used cars	119.4	119.2	117.9	116.0
Motor fuel	83.1	84.1	82.3	84.0
Maintenance and repairs	120.9	120.3	120.0	115.7
Public transportation	124.0	123.7	123.7	122.1
Medical care	140.4	139.9	139.3	131.7
Medical care commodities	142.0	141.1	140.5	132.7
Medical care services	140.1	139.6	139.0	131.5
Professional services	139.2	138.7	138.4	130.7
Entertainment	121.3	120.7	120.5	116.1
Other goods and services	140.0	137.5	136.5	131.1
Personal care	120.3	119.0	119.2	116.0
Personal and educational expenses	151.8	147.8	146.3	142.1

Source: U.S. Department of Labor, Bureau of Labor Statistics.

Index of Articles in 1988 Issues

	<i>Issue No.</i>	<i>Page</i>
Employment		
Child Care Arrangements of Working Women	1	26
Dietary Intakes by Employment Status	4	11
Husbands in the Labor Market	2	28
The Employed Woman's Use of Time for Wardrobe Maintenance	4	2
Women and the Labor Market	4	14
Expenditures		
Expenditures of Urban and Rural Households	4	16
Expenditure Patterns of Single Women and Single Men	3	14
Household Expenditures for Education and Reading	3	6
Household Transportation Expenditures	3	9
Methodological Issues for Today and Tomorrow	3	2
Results of the 1986 Consumer Expenditure Survey	4	18
Finance/Income		
Changes in the Use of Cash and Other Methods of Payment	1	7
Consumer Spending and Saving: The Outlook for 1988	2	1
Minimum Wage—Its Relation to Incomes and Poverty	1	31
Regional Per Capita Personal Income	2	21
Food		
Comparing Nutrients in the Soviet and U.S. Food Supplies	3	16
Consumer Reactions to Price Savings on Food	2	17
Economic and Regulatory Policies: Implications for Nutrition	2	13
Nationwide Food Consumption Survey 1987	2	24
Socioeconomic Factors and Food Usage Patterns	1	19
Supermarket Salad Bars--Cost vs. Convenience	4	8
Women's Food and Nutrient Intakes Away From Home, 1985	1	9
Housing/Population		
After-School Care of School-Age Youth	1	28
Aging in the Eighties, People Living Alone	4	15
Caregivers of the Frail Elderly: A National Profile	3	19
Characteristics and Housing Problems of Mobile Home Owners	3	18
Hispanic Population in the United States	2	30
Housing Expenditures	1	2
Living Arrangements and Marital Status of Households and Families	1	30
Recent Reports on Housing	2	32
1990 Census—Proposed Change in Question on Race	4	16
Miscellaneous		
Computer Use in the United States	4	19
NCR Research Publication	2	33
Recent Trends in Clothing and Textiles	2	10

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Highlights

Time Used in Clothing Care

Supermarket Salad Bars

Dietary Intakes by Employment Status